

Notice of Allowability

Application No.

10/008,763

Examiner

Mitchell R. Slavitt

Applicant(s)

CODILIAN, RAFFI

Art Unit

2651

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to an amendment filed 3/7/05.
2. ☒ The allowed claim(s) is/are 1-15, 18-30, and 34-39, renumbered as 1-34.
3. ☒ The drawings filed on 12 March 2002 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

Reasons for Allowance

1. Claims 1-15, 18-30, and 34-39 are allowed as the prior art does not teach or suggest the applicant's invention. Independent claim 1 teaches a hard disk drive. The distinguishing elements of the claim are: a shock detection system that analyzes a signal indicative of a movement of at least a portion of the hard disk drive, determines whether the hard disk drive has experienced a shock event, and provides a shock event parameter based on the signal; and a shock event logger that records the shock event parameter by incrementing one of a plurality of bins based on the value of the shock event parameter provided by the shock detection system.

Independent claim 13 teaches a hard disk drive. The distinguishing elements of the claim are: wherein the shock detection system comprises a position error signal processor that analyzes the position error signal indicative of a position deviation of the transducer from a reference position and determines that a shock event has occurred when the position error signal exceeds a predetermined threshold value of approximately 32% of a track width; and wherein the shock event logger records the position error signal by incrementing one of a plurality of bins based on the value of the position error signal.

Independent claim 15 teaches a hard disk drive. The distinguishing elements of the claim are: wherein the shock event logger records position error signals corresponding to a plurality of shock events by incrementing one of a plurality of bins

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based on the value of the position error signal, the position error signal being recorded in a non-volatile memory.

Independent claim 18 teaches a hard disk drive. The distinguishing elements of the claim are: wherein the shock detection system comprises a position error signal processor that monitors an elapsed time taken for the position deviated transducer to return to and maintain a position within a reference window for a predetermined time, wherein the position error signal processor determines that a shock event occurred when the elapsed time exceeds a predetermined duration.

Independent claim 27 teaches a method of logging shock events in a hard disk drive. The distinguishing elements of the claim are: providing a shock event parameter based on the signal to the shock event logger; and incrementing one of a plurality of bins based on the value of the shock event parameter.

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitchell R. Slavitt whose telephone number is (571) 272-7562. The examiner can normally be reached on M-F (6:30-4:00), 2nd Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


**DAVID HUDSPETH
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600**

MS mh
7/8/05